UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,657	02/14/2001	Wang-Chien Lee	00-8013	8964

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EXAMINER
LY, ANH

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-74* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-74* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Request Continued Examination

1.   The request filed on 03/19/2004 for a Request for Continued Examination (RCE)

under 37 CFR 1.114 based on parent Application No. 09/783,657 is acceptable and a

RCE has been established. An action on the RCE follows.

2.   Claims 1-74 are pending in this application.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

5.   Claims 1-10, 12-17, 30-47 and 61-74 are rejected under 35 U.S.C. 103(a) as

being unpatentable over US Patent No. 6,519,597 issued to Cheng et al. (hereinafter

Cheng) in view of US Patent No. 6,480,865 issued to Lee et al. (hereinafter Lee).

With respect to claim 1, Cheng discloses the steps of: extracting (24) metadata

(34) representative of the document-type definition (18) from the document -type

definition (18) (metadata of XML document consisting of DTD elements or components

which are retrieved, searched or stored by users after integrating the XML documents

into relational database system: col. 11, lines 58-65; also see col. 7, lines 20-28 and

lines 40-42; XML extender for storing and retrieving XML documents);

the schema (22) for the relational database (14) from the metadata (34), wherein

at least one table (20) is thereby defined in the relational database (14) corresponding

to at least one content particle of the document-type definition (18) via the metadata

(34) (schema or metadata of XML is a place where data types, definitions and

restrictions of usage are defined or documented: col. 3, 12-18 and lines 25-31);

and loading (30) the document data (16) into the at least one table (20) of the

relational database (14) according: to the relational schema (22) in a manner driven by

the metadata (34) (XML extender is used to store XML document; see fig. 4; see

abstract lines 1-7 and col. 3, lines 25-31 and tables are created are XML table including

one or more XML column from which the metadata is regarded (col. 12, lines 35-50 and

DTD reference table col. 11, lines 58-65).

Cheng teaches an XML extender for a computer implemented relational

database system for storing, querying and retrieving a structured document or XML

document, and document type definition (DTD). The DB2XML being created from XML

extender is automatically generated and integrating XML document into the database

system. DB2XML is the place where the metadata of XML document or XML schema to

be stored. Chang does not explicitly teach automatically generating the schemas for the

relational database.

However, Lee teaches XML document as well as XML schema are automatically

generated and transformed (col. 3, lines 45-54 and col. 9, lines 30-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Cheng with the teachings

of Lee so as to obtain the way for generating automatically XML document or metadata

of XML by using XML extender of DB2 (Lee - col. 9, lines 30-38). This combination

would have made the schema generation method for generating a schema relational

database from metadata of XML (Lee – col. 3, lines 45-54 and col. 9, lines 30-38) and it

would provide an application for storing XML documents in existent or newly created

columns of a relational database table (Cheng – col. 3, lines 38-42) in the storing XML

in the relational database environment.

With respect to claim 2, Cheng discloses generating (28) an item metadata table (90) corresponding to element type content particles in the document-type definition (18) (col. 11, lines 60-65; also see col. 5, lines 32-60 for DTD elements).

With respect to claim 3, Cheng discloses creating at least one default item in the item metadata table (90) (XML column in XML table: col. 12, lines 35-38).

With respect to claim 4, Cheng discloses updating the item metadata table (90) with each of the element type content particles the document-type definition (18) (col. 8, lines 15-19).

With respect to claim 5, Cheng discloses generating (28) an attribute metadata table (92) corresponding to attribute type content particles in the document--type definition (18) (col. 8, lines 57-67; also see col. 9, lines 1-3 and lines 57-60 and col. 5, lines 32-60 for element types of DTD by an example).

With respect to claim 6, Cheng discloses creating a default attribute value in the attribute metadata table (92) corresponding to attributes of element types in the document-type definition (18) (col. 8, lines 53-67 and col. 9, lines 1-3; also see col. 5, lines 32-60).

With respect to claim 7, Cheng discloses updating, the attribute metadata table (92) with each of the attribute type content particles of each element type of the document-type definition (18) (col. 8, lines 15-19 also see col. 5 lines 32-60 for element types of DTD).

With respect to claim 8, Cheng discloses generating a nesting metadata table (94) for storing data items corresponding to nesting relationships implied in the

document-type definition (18) (XML document is a nested document structures and associated semantics: col. 1, lines 45-50; see col. 14, lines 36-42: the content of XML document is used by SQL query statements defining the containment relationship, which is a nesting relationship).

With respect to claim 9, Cheng discloses generating a row in the nesting metadata table (94) corresponding to each relationship between items identified in the item metadata table (90) (row of DTD in XML document: col. 11, lines 60-65; XML document is a nested document structures and associated semantics: col. 1, lines 45-50; see col. 14, lines 36-42: the content of XML document is used by SQL query statements defining the containment relationship, which is a nesting relationship).

With respect to claim 10, Cheng discloses wherein the generated nesting table (94) row indicates the cardinality between a pair of items (row of DTL and XML column: col. 47, lines 60-65 and col. 12, lines 45-50).

With respect to claim 12, Cheng discloses generated nesting table (94) row indicates a relationship between a parent item and a child item (tree structure of document such as B-tree: col. 14, lines 62-67 and col. 15, lines 1-15; also see figs. 9 and 10).

With respect to claim 13, Cheng discloses the generated nesting table (94) row indicates a relative position of a child item with respect to other items in a definition of the corresponding parent item (col. 15, lines 61-65 and col. 16, lines 5-8).

With respect to claim 14, Cheng discloses creating at least one table in the schema (22) of the relational database corresponding to at least one row of the metadata item table (90) (col. 3, lines 12-18 and col. 11, lines 58-67).

With respect to claim 15, Cheng discloses generating (28) at least one default field in the table of the schema (22) (col. 2, lines 60-67).

With respect to claim 16, Cheng discloses altering the schema (22) of the relational database to add at least one column to the at least one table in the relational database (14) schema (22) corresponding to each row of the metadata attribute table (92) (col. 2, lines 60-67 and col. 12, lines 16-52; for schema: col. 3, 12-18 and lines 25-31).

With respect to claim 17, Cheng discloses altering the tables in the schema (22) of the relational database to add columns representing links between tables (20) of the relational database schema (22) corresponding to each relationship identified in each row of the metadata nesting table (94) (col. 12, lines 16-52 and col. 14, lines 36-42; for schema: col. 3, 12-18 and lines 25-31).

With respect to claims 30-36, Cheng discloses optimizing (26) the metadata (col. 11, lines 58-67); eliminating duplicate particle references in the metadata (col. 17, lines 50-61 also see fig. 13); simplifying references to corresponding elements, links and attributes in the metadata (col. 3, lines 12-18 and lines 45-50; also see col. 7, lines 40-46); inlining particular attributes of the metadata (col. 2, lines 60-64 and col. 3, lines 12-18 and lines 45-50); wherein the document (12) is an XML document (col. 3, lines 32-36); wherein the document-type definition (18) is a DTD (col. 8, lines 53-55); and

wherein the data (16) is tagged data (col. 14, lines 45-49 and col. 15, lines 58-67; also see col. 16, lines 1-8).

Claim 37 is essentially the same as claim 1 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 1 hereinabove.

Claim 38 is essentially the same as claim 2 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 2 hereinabove.

Claim 39 is essentially the same as claim 3 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 40 is essentially the same as claim 4 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 4 hereinabove.

Claim 41 is essentially the same as claim 5 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 5 hereinabove.

Claim 42 is essentially the same as claim 6 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 6 hereinabove.

Claim 43 is essentially the same as claim 8 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 8 hereinabove.

Claim 44 is essentially the same as claim 9 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 9 hereinabove.

Claim 45 is essentially the same as claim 14 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 14 hereinabove.

Claim 46 is essentially the same as claim 16 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 16 hereinabove.

Claim 47 is essentially the same as claim 17 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 17 hereinabove.

Claim 61 is essentially the same as claim 30 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 30 hereinabove.

Claim 62 is essentially the same as claim 31 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 33 hereinabove.

Claim 63 is essentially the same as claim 32 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 29 hereinabove.

Claim 64 is essentially the same as claim 34 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 34 hereinabove.

Claim 65 is essentially the same as claim 35 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 35 hereinabove.

Claim 66 is essentially the same as claim 36 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 36 hereinabove.

With respect to claim 67, Cheng discloses an extractor (24) adapted to a document-type definition (18) that extracts metadata (34) representative of the document-type definition (18) from the document-type definition (18), wherein the extractor stores the metadata (34) in at least three tables comprising a metadata item table (90) containing metadata (34) representative of element types in the document-type definition (18), a metadata attribute table (92) containing metadata (34) representative of attributes in the document type definition (18), and a metadata nesting table (94) containing metadata (34) representative of nesting relationships between particles in the document type definition (18) (Cheng discloses extenders for extracting, generating and loading such as XML extender and relational extender; metadata of

XML document consisting of DTD elements or components which are retrieved,

searched or stored by users after integrating the XML documents into relational

database system: col. 11, lines 58-65; also see col. 7, lines 20-28 and lines 40-42; XML

extender for storing and retrieving XML documents; col. 3, 12-18 and lines 25-31; and

XML extender is used to store XML document; see fig. 4; see abstract lines 1-7 and col.

3, lines 25-31 and tables are created are XML table including one or more XML column

from which the metadata is regarded: col. 12, lines 35-50 and DTD reference table col.

11, lines 58-65).

Cheng teaches an XML extender for a computer implemented relational

database system for storing, querying and retrieving a structured document or XML

document, and document type definition (DTD). The DB2XML being created from XML

extender is automatically generated and integrating XML document into the database

system. DB2XML is the place where the metadata of XML document or XML schema to

be stored. Chang does not explicitly teach read automatically a document-type definition

that extracts metadata representative of the document-type definition.

However, Lee teaches XML document, DTD as well as XML schema are

automatically generated and transformed (col. 3, lines 45-54 and col. 9, lines 30-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Cheng with the teachings

of Lee so as to obtain the way for generating automatically XML document or metadata

of XML by using XML extender of DB2 (Lee - col. 9, lines 30-38). This combination

would have made the schema generation method for generating a schema relational

database from metadata of XML (Lee – col. 3, lines 45-54 and col. 9, lines 30-38) and it

would provide an application for storing XML documents in existent or newly created

columns of a relational database table (Cheng – col. 3, lines 38-42) in the storing XML

in the relational database environment.

With respect to claim 68, Cheng disclose a pattern-mapping table (36) initially

constructed in an initialized state (col. 13, lines 46-50).

With respect to claim 69, Cheng discloses wherein the pattern mapping table

(36) is loaded with actions indicative of relationships between the data (16) and the

document-type definition (col. 7, lines 17-22 and col. 13, lines 46-50).

With respect to claim 70, Cheng disclose a generator (28) operably

interconnected to the extractor (24) for generating (28) the schema (22) for the

relational database (14) from the metadata (34), wherein at least one table (20) is

thereby defined in the relational database (14) corresponding to at least one content

particle of the document-type definition (18) via the metadata (see abstract lines 1-7 and

col. 3, lines 25-31 and tables are created are XML table including one or more XML

column from which the metadata is regarded: col. 12, lines 35-50 and DTD reference

table col. 11, lines 58-65).

With respect to claim 71, Cheng discloses wherein the generator (28) forms a

table (20) with at least one default field in the relational database ((4) for each item

contained in the metadata item table (col. 11, lines 60-65 and col. 14, lines 36-42).

With respect to claim 72, Cheng discloses wherein the generator (28) forms a

column in a corresponding table (20) in the relational schema (22) corresponding to

each attribute in the metadata attribute table (92) linked to an item in the metadata item

table (col. 3, lines 12-18 and col. 11, lines 58-67).

With respect to claim 73, Cheng discloses wherein the generator (28) forms a

link between tables in the relational database corresponding to nesting relationships

contained in the metadata nesting table (col. 12, lines 16-52 and col. 14, line4s 36-42).

With respect to claim 74, Cheng discloses a loader (30) operably interconnected

to the generator (213) for loading the document data (16) into the at least one table (20)

of the relational database (14) according to the relational schema (22) and driven by the

metadata (Cheng discloses extenders for extracting, generating and loading such as

XML extender and relational extender; metadata of XML document consisting of DTD

elements or components which are retrieved, searched or stored by users after

integrating the XML documents into relational database system: col. 11, lines 58-65;

also see col. 7, lines 20-28 and lines 40-42; XML extender for storing and retrieving

XML documents; and see abstract lines 1-7 and col. 3, lines 25-31 and tables are

created are XML table including one or more XML column from which the metadata is

regarded: col. 12, lines 35-50 and DTD reference table col. 11, lines 58-65).

6.   Claims 11, 18-29, and 48-60 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent No. 6,519,597 issued to Cheng et al. (hereinafter Cheng)

in view of US Patent No. 6,480,865 issued to Lee et al. (hereinafter Lee) and further in

view of US Patent No. 6,418,448 issued to Sarkar.

With respect to claim 11, Cheng in view of Lee discloses a method for generating

a schema for a relational database as discussed in claim 1.

Cheng teaches an XML extender for a computer implemented relational

database system for storing, querying and retrieving a structured document or XML

document, and document type definition (DTD). The DB2XML being created from XML

extender is automatically generated and integrating XML document into the database

system. DB2XML is the place where the metadata of XML document or XML schema to

be stored. Chang does not explicitly teach automatically generating schema or reading

a document-type definition that extracts metadata representative of the document-type

definition. Lee teaches XML document, DTD as well as XML schema are automatically

generated and transformed (col. 3, lines 45-54 and col. 9, lines 30-38). In combination,

Chang and Lee do not teach the cardinality is one-to-one and one-to-many,

However, Sarkar discloses entity-relationship diagram (ER) of two entities of

primary key/foreign key relationship for XML/RDF (see fig. 7(a) and 7(b) col. 17, lines

20-41).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Cheng in view of Lee with

the teachings of Sarkar so as to obtain one-to-one and one-to-many relationship via ER

for the XML/RDF (col. 17, lines 36-45). This combination would have made the schema

generation method for generating a schema relational database has a way of

distribution the document or XML/RDF document over the web are mapped to data and

metadata in multiple related object relational database for object SQL queries to fetch

and manipulate information (Sarkar – col. 6, lines 44-50) and can be carrying the object

SQL queries for execution within one or more object relational schema components

over the web (Sarkar col. 6, lines 60-65). Also it would provide an application for storing

XML documents in existent or newly created columns of a relational database table

(Cheng – col. 3, lines 38-42) in the storing XML in the relational database environment.

With respect to claims 18-19, Cheng in view of Lee discloses a method for

generating a schema for a relational database as discussed in claim 1.

Cheng teaches an XML extender for a computer implemented relational

database system for storing, querying and retrieving a structured document or XML

document, and document type definition (DTD). The DB2XML being created from XML

extender is automatically generated and integrating XML document into the database

system. DB2XML is the place where the metadata of XML document or XML schema to

be stored. Chang does not explicitly teach automatically generating schema or reading

a document-type definition that extracts metadata representative of the document-type

definition. Lee teaches XML document, DTD as well as XML schema are automatically

generated and transformed (col. 3, lines 45-54 and col. 9, lines 30-38). In combination,

Chang and Lee do not teach adding a foreign key to a parent table if the identified

relationship is a one-to-one relationship; one-to-many relationship.

However, Sarkar discloses entity-relationship diagram (ER) of two entities of

primary key/foreign key relationship for XML/RDF (see fig. 7(a) and 7(b) col. 17, lines

20-41).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Cheng in view of Lee with

the teachings of Sarkar so as to obtain one-to-one and one-to-many relationship via ER

for the XML/RDF (col. 17, lines 36-45). This combination would have made the schema

generation method for generating a schema relational database has a way of

distribution the document or XML/RDF document over the web are mapped to data and

metadata in multiple related object relational database for object SQL queries to fetch

and manipulate information (Sarkar – col. 6, lines 44-50) and can be carrying the object

SQL queries for execution within one or more object relational schema components

over the web (Sarkar col. 6, lines 60-65). Also it would provide an application for storing

XML documents in existent or newly created columns of a relational database table

(Cheng – col. 3, lines 38-42) in the storing XML in the relational database environment.

With respect to claims 20-22, Cheng discloses initializing a link table (col. 8, lines

5-10); determining whether each item in the metadata nesting table (94) contains a

group type (col. 7, lines 17-22 and col. 18, lines 45-54); and initializing a

pattern-mapping table (col. 13, lines 46-50).

With respect to claims 23-29, Cheng discloses mapping a link into the link table

(36) for each item in the metadata nesting table (94) that does not contain a group type

(col. 14, lines 36-42 and also see col. 7, lines 17-22); creating an additional link table

(36) containing a mapping of a link pattern for each group type identified in the metadata item table (col. 7, lines 17-22 and col. 13, lines 46-50); creating a create tuple loading action in the pattern mapping table (36) associated with a particular pattern corresponding to each item in the item metadata table (col. 12, lines 35-38 and col. 13, lines 46-50); creating an update tuple loading action in the pattern mapping table (36) associated with a particular pattern corresponding to each attribute in the attribute metadata table (col. 12, lines 35-38 and col. 13, lines 46-50); creating a create tuple loading action in the pattern mapping table (36) associated with a particular pattern corresponding to each group in a link; and creating an assign action tuple loading action in the pattern mapping table (36) associated with a particular pattern corresponding to each pair in the same link; corresponding to each lint: in the link pattern table (col. 11, lines 58-67, col. 13, lines 18-22 ; also see col. 2, lines 12-18 and col. 12, lines 35-38); forming a tree structure (300) with the document data (col. 14, lines 62-67 and col. 15, lines 1-5); and traversing the formed tree (300) and updating the at least one relational database (14) table according to the rows of the pattern mapping table (col. 15, lines 58-67).

Claim 48 is essentially the same as claim 18 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 18 hereinabove.

Claim 49 is essentially the same as claim 19 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 19 hereinabove.

Claim 50 is essentially the same as claim 20 except that it is directed to a system

rather than a method, and is rejected for the same reason as applied to the claim 20

hereinabove.

Claim 51 is essentially the same as claim 21 except that it is directed to a system

rather than a method, and is rejected for the same reason as applied to the claim 21

hereinabove.

Claim 52 is essentially the same as claim 22 except that it is directed to a system

rather than a method, and is rejected for the same reason as applied to the claim 22

hereinabove.

Claim 53 is essentially the same as claim 23 except that it is directed to a system

rather than a method, and is rejected for the same reason as applied to the claim 23

hereinabove.

Claim 54 is essentially the same as claim 24 except that it is directed to a system

rather than a method, and is rejected for the same reason as applied to the claim 24

hereinabove.

With respect to claim 55, Cheng discloses retrieves a preselected set of rows

corresponding to each item in the metadata item table (col. 12, lines 35-38).

Claim 56 is essentially the same as claim 25 except that it is directed to a system

rather than a method, and is rejected for the same reason as applied to the claim 25

hereinabove.

Claim 57 is essentially the same as claim 26 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 26 hereinabove.

Claim 58 is essentially the same as claim 27 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 27 hereinabove.

Claim 59 is essentially the same as claim 28 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 28 hereinabove.

Claim 60 is essentially the same as claim 29 except that it is directed to a system rather than a method, and is rejected for the same reason as applied to the claim 29 hereinabove.

Contact Information

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is 703 306-4527 or via E-Mail: ANH.LY@USPTO.GOV. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, reached on 703 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703 746-7239.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: Central Office (703) 872-9306 (effective from 08/04/2003)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-6606 or 703 305-3900.
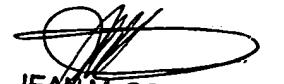
JEAN M. CORRIELUS
PRIMARY EXAMINER

ANH LY
MAR. 30th, 2004